Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Notice of Proposed Rulemaking Transforming the 2.5 GHz Band	FCC 18-59 WT Docket No. 18-120

COMMENTS OF SETDA ON PROPOSED SERVICE RULES ON THE 2.5 GHz BAND

Founded in 2001, the State Educational Technology Directors Association ("SETDA") is the principal non-profit membership association representing U.S. state and territorial educational technology leaders. Our mission is to build and increase the capacity of state and national leaders to improve education through technology policy and practice. SETDA welcomes the Federal Communications Commission's ("Commission") decision to seek public comment about the future of the Educational Broadband Service (EBS).[1] EBS can serve as an important tool for state education agencies, school districts, educational service agencies, and other local anchor institutions working to close persistent broadband connectivity gaps and support digital learning. Therefore, updating the EBS regulations and establishing new licensing opportunities is of paramount importance to the nation's students and schools. SETDA urges the Commission to recognize the potential of EBS to help close the "homework gap;" maintain the service's focus on educational use; make state education agencies, educational service agencies and community

[1] Proposed Rules for Transforming the 2.5 GHz Band, 26396 Federal Register, Vol. 83, No. 110 (2018)

anchor institutions eligible licensees; and ensure broadband service delivery at home to unserved and underserved students.

USING EBS TO CONNECT MORE STUDENTS TO HIGH CAPACITY BROADBAND WILL SERVE THE PUBLIC INTEREST, CONVENIENCE AND NECESSITY

Strategies and models for ensuring educational equity and excellence have evolved significantly over the past two decades. Today, preparing students for academic and workplace success requires granting students access to technology and high capacity broadband at school, at home and in other community spaces. Students need access to devices and high capacity broadband to complete homework, use digital instructional materials, participate in virtual courses, and to connect with other students, their teachers, and even with experts throughout the world. Schools and school districts are also changing administrative and instructional practices to leverage technology's advantages. Such approaches include student-centered, personalized learning to increase student achievement, enabled in part by the safe and effective use of data that also leads to higher levels of engagement among families and students. These digital learning practices and other activities are elevating the need for students and their families to have access to broadband when they are off school grounds.[2]

Unfortunately, many students, particularly rural and minority students, still lack home broadband access or only have access at insufficient speeds.[3] According to a 2015 Pew Research Center analysis, "some 5 million households with school-age children do not have high-speed internet service at home. Low-income households – and especially minority students – make up a

---

[2] SETDA has documented the digital education transition in a number of recent reports: Broadband Imperative II: Equitable Access for Learning *(2016),* *State K-12 Broadband Leadership: Driving Connectivity and Access (2016),* *E-rate Modernization Toolkit (2015),* State Wi-Fi Leadership for Fostering Digital Learning Ready K-12 Schoools (2017), *The Broadband Imperative: Recommendations to Address K-12 Education Infrastructure Needs* (2012), *High-Speed Broadband Access for All Kids: Breaking through the Barriers* (2008).

[3] The Broadband Imperative II: Equitable Access for Learning, p. 23, State Educational Technology Directors Association (2016).

disproportionate share of that 5 million."[4] Native American households on reservations also disproportionately lack access to broadband. Furthermore, a recent U.S. Department of Education, Institute of Education Sciences study showed that "[a] higher percentage of students in suburban areas had fixed broadband access at home than students in rural areas, with the largest difference noted for students in remote rural areas. For example, the percentage of students in remote rural (65 percent) and distant rural areas (66 percent) with fixed broadband access was lower than in other locales, with percentages ranging from 70 percent in distant towns to 85 percent in large suburbs."[5]

Even as states and school districts continue to wrestle with troubling broadband connectivity gaps, they are rapidly pressing the digital transition forward, including moving to much greater use of digital materials. As reported in SETDA's research paper *Navigating the Digital Shift*, six states (Arkansas, Georgia, Louisiana, North Carolina, West Virginia, and Wisconsin) have statutes requiring the implementation of digital instructional materials in the next five years.[6] For example, the Georgia's *Digital Classroom Act* requires the implementation of digital instructional materials and directs boards of education to provide wireless electronic devices for students to access instructional materials and content.[7]

THE COMMISSION SHOULD MAINTAIN AN EBS EDUCATIONAL USE REQUIREMENT AND DEFINE EDUCATION USE CONSISTENT WITH DIGITAL LEARNING PRACTICES AND ACTIVITIES

---

[4] The Numbers Behind the Broadband 'Homework Gap", J. Horrigan, Pew Research Center, (April 2015). http://www.pewresearch.org/fact-tank/2015/04/20/the-numbers-behind-the-broadband-homework-gap/

[5] Student Access to Digital Learning Resources Outside of the Classroom, KewalRamani, Angelina; Zhang, Jijun; Wang, Xiaolei; Rathbun, Amy; Corcoran, Lisa; Diliberti, Melissa; and Zhang, Jizhi Institute of Education Sciences, (2018).

[6] Jones, R., Fox, C. (2018). Navigating the Digital Shift 2018: Broadening Student Learning Opportunities. Washington, DC: State Educational Technology Directors Association (SETDA).

[7] Ga. Code Ann. § 20-2-1010 et. seq. (2018).

The EBS rules should continue to include educational use requirements, but they should reflect modern digital learning practices, including continuing to address the delivery of high capacity broadband to students on- and off-campus. Updating and continuing EBS's educational use requirements will provide a guiding vision for licensees' use of this valuable spectrum and establish the baseline conditions that must be met when the spectrum is leased. SETDA strongly supports extending new EBS licensing opportunities to all manner of community anchor institutions and consortia of eligible stakeholders, including public-private partnerships, but all licensees should be obligated to serve students living in their service areas. Absent educational use requirements, the EBS channels will fail to meet their full potential to serve students and schools and promote the public interest. This requirement need not preclude efforts to use the spectrum to serve other members of the community, but it will ensure that boosting student connectivity, which should be considered an educational use, is not omitted as a goal from otherwise meritorious projects.

Model EBS cases such as Northern Michigan University; Albemarle County (VA); Kings County Office of Education (CA); and Imperial County Office of Education (CA), demonstrate this spectrum's potential to make a meaningful difference for students and communities. These projects include excellent examples of education-focused public private partnerships, innovative multi-agency community collaboration, and a relentless commitment to boosting rural student broadband connectivity. The Commission should review these successful license uses to inform the new EBS framework, including the educational uses applicable to these channels.

One notable EBS initiative the Commission should carefully review is being led and managed by **Northern Michigan University (NMU).** In 2008, NMU received its first EBS license, launching the country's first educational WiMAX network within a 35-mile General

Service Area (GSA). This carrier-grade service, coupled with mobile and fixed-wireless receivers, allowed students the flexibility to learn no matter where they were. The program became an instant success, bringing requests for the service from other Upper Peninsula cities. NMU decided in 2014 to launch an ambitious plan to expand service to K-12 students and many members of neighboring rural communities who could not afford internet service—or even get reliable service at any cost. In 2017, Michigan's Economic Development Corporation provided 66% match funding for NMU's $10 million LTE construction project. With its EBS authorizations, funding, and equipment secured, the university began building its Educational Access Network (EAN), which, by 2019, will reach across the Upper Peninsula to many underserved communities whose internet access had previously been nonexistent, unreliable, or prohibitively expensive. EAN will provide educational content, connectivity, and a host of community services without the high cost or data caps that often plague rural areas.

In fact, it is the very lack of internet traffic in the UP that makes such robust coverage possible. For once, being in a remote rural community can be an advantage in terms of technology. Since fiber or copper service to homes is often not practical, wireless transmission has many advantages. NMU and its partnering communities set up towers and transmitters in local municipalities and customize the service to meet the needs of the people who live and work there.

The benefits to UP residents are numerous. Aside from the typical commerce and cultural aspects of the internet that many of us take for granted, EAN provides access to online learning and library/research facilities as well as access to online medical and health resources through organizations like the Upper Peninsula Health Corporation. Network access also aids in environmental and civil engineering research in wilderness locations and remote monitoring of

public utilities in cities and townships. It also can put network-connected terminals in police and emergency vehicles. And it ensures that students and families in rural areas do not have to drive 10 miles to McDonald's to access the internet, as one Marquette public school family found themselves doing. EAN also allows students to take college courses while still in high school, reducing the cost and time commitment needed to earn a college degree.

THE COMMISSION SHOULD PERMIT STATE EDUCATION AGENCIES, EDUCATIONAL SERVICE AGENCIES AND ANCHOR INSTITUTIONS TO HOLD EBS LICENSES

EBS licenses should be available to state education agencies, educational service agencies, and community anchor institutions, so that the spectrum can be allocated to licensees, including consortia, that are best positioned to meet students' and communities' educational and broadband needs.[8] SETDA supports using a local presence requirement and urges the Commission to adopt a definition of "local presence" that is inclusive of the entities above that deeply understand local needs and have a strong direct interest in serving students. These entities were established and exist to serve students in their jurisdictions and work daily to meet local educational needs. Some states, including Louisiana, are already exploring using EBS spectrum to extend 5G services to a broader number of students and extending the reach of mobile providers.

State education agencies and educational service agencies are inherently local given their statutory authority, scope of work, and mandates to serve all students in their jurisdictions. Among their many roles, these entities oversee public education, while also providing direct local assistance such as providing shared infrastructure, onsite technical support, and network

[8] "Educational Service Agency" means "a regional public multi-service agency authorized by State statute to develop, manage, and provide services or programs to local educational agencies." Every Student Succeeds Act codified as 20 USC § 7801(17).

engineering. Permitting state and educational service agency licensees would enable innovative statewide connectivity strategies on the EBS channels and help minimize "white spaces" by allowing state or regional entities to step in when local leaders fail to use the spectrum or are unable to use it. For example, state applicants may be able to combine service areas and establish wireless broadband networks to serve, across school districts, a large number of homework gap families.

SETDA also urges the Commission to apply the local presence requirement to existing and new licensees. Furthermore, if an existing or future licensee is unable to demonstrate a local presence, the Commission should reclaim the spectrum and provide it for use by a qualified entity better positioned to use the channels for meeting community educational and connectivity needs. Absent a system for monitoring and holding licensees accountable for achieving the educational uses defined by the regulations, many students will perpetually lack access to the broadband services they need to prepare for later academic and workplace success.

LICENSEES SHOULD NOT BE PERMITTED TO ASSIGN OR TRANSFER CONTROL OF EBS LICENSES TO COMMERCIAL ENTITIES

SETDA encourages the Commission to prohibit EBS licensees from selling or otherwise conveying EBS licenses to commercial entities, through either an assignment or transfer of control. Selling the licenses to commercial entities will not serve the public interest or help to ensure that students and other unserved or underserved communities gain access to high capacity broadband. The loss of the EBS spectrum - through assignment or transfer - will prevent other educational institutions from leveraging this valuable asset for their students. Permitting licensees to sell some or all of their channels would also unjustly enrich them, rather than promote student connectivity and other educational purposes.

THE COMMISSION SHOULD PERMIT LEASING AND PUBLIC PRIVATE PARTNERSHIPS DESIGNED TO DELIVER EBS EDUCATIONAL USES

Well-designed, fair leases aligned to updated educational service requirements, can support effective public-private partnerships designed to meet students' connectivity and other learning needs. The system must, however, include a focus on using the spectrum to deliver home broadband access to unserved and underserved students paired with meaningful build-out and service requirements. Small, less sophisticated licensees may need well-resourced and technically adept community and corporate partners to meet their students' connectivity needs. Equitable leasing arrangements can provide a reciprocal benefit, without compromising educational use, to parties willing to collaborate to close the homework gap and address other connectivity issues facing communities. Such leases, however, must be subject to periodic review and revision to ensure that the spectrum is being used for its best and highest educational use.

THE COMMISSION SHOULD ADOPT MEANINGFUL BUILD-OUT AND SUBSTANTIAL USE REQUIREMENTS BUT RECOGNIZE THE UNIQUE CHALLENGES ASSOCIATED WITH SERVING RURAL AREAS

SETDA urges the Commission to adopt build-out requirements that lead to timely service delivery for marginalized students, while also recognizing that licenses granted for harder-to-serve, remote rural areas should be subject to ambitious but less rigid requirements. SETDA also encourages the Commission to establish uniform build-out requirements applicable to all license holders, both legacy and new licenses. All EBS licensees should have mandatory build-out requirements for their channels and they should demonstrate substantial use for their specific frequency ranges. Gaps in the current regulations sometimes enable licensees to circumvent these important requirements. With the Commission's goal to ensure all spectrum is utilized, substantial use must be enforced against the actual licensed spectrum.

THE COMMISSION SHOULD NOT USE AUCTIONS TO DISTRIBUTE 2.5 GHz LICENSES AND SHOULD NOT USE AUCTIONS TO RESOLVE COMPETING APPLICATIONS

Spectrum is a public resource that should be freely available to address critical educational and other local needs, such as connecting students to high capacity broadband. Using auctions to distribute EBS licenses, including resolution of competing EBS applications, will hinder, not help, efforts to reach underserved and unserved students and families, especially in high cost rural areas. Auction costs would stretch already limited state and local education budgets. Instead, conflicting EBS license applications should be resolved by encouraging applicants seeking to serve the same service areas to work collaboratively through a single consortium application. This could be accomplished by notifying the competing applicants and allowing them to file a single application before the Commission "accepts" the application for filing. Alternatively, the Commission could adopt a "first in time, first in right" system, conditioned on the first applicant's ability to comply with all relevant license requirements and conditions.

THE COMMISSION SHOULD ENSURE THAT E-RATE COST ALLOCATION RULES ALIGN WITH THE NEW EBS FRAMEWORK

The Commission should clarify that EBS licensees that use their license to extend an eligible school's E-rate-covered Internet access service to student homes are not obligated to cost allocate, in their requests for E-rate support, traffic that originates off-campus.[9] This E-rate rules change can support efforts to use EBS to bridge the digital divide. If a school was allowed to

[9] Petitions requesting this relief have been filed with the Commission. See for example, *Wireline Competition Bureau Seeks Comment on Petitions Regarding Off-Campus Use of Existing E-rate Supported Connectivity,* CC Docket No. 02-6; WC Docket 10-90; WC Docket No. 13-184 (2016)

repurpose their broadband link after hours, it would also enhance their ability to offer Children's Internet Protection Act (CIPA) filtered internet to students at home.

CONCLUSION

SETDA respectfully urges the Commission to adopt these recommendations. Modernizing the EBS regulations to better meet educator and student needs will make a meaningful difference for communities across the country. We encourage you to take this action promptly, including swiftly opening new licensing windows, so that interested states, educational service agencies, school districts and other anchors can add this spectrum to the tools they are using to close broadband gaps and better meet their communities' educational needs.

SETDA
P.O. Box 10
Glen Burnie, MD 21060

August 8, 2018